

IN THE CLAIMS

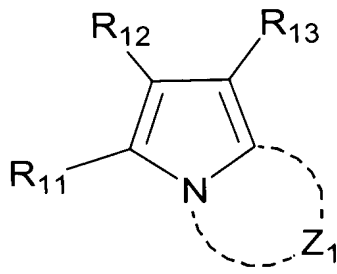
Please amend the claims as follows:

Claim 1 (Currently Amended): An organic thin film transistor comprising:
at least three terminals consisting of a gate electrode, a source electrode and a drain electrode; and

an insulating layer and an organic semiconductor layer on a substrate, which controls an electric current flowing between the source electrode and the drain electrode by applying an electric voltage across the gate electrode, a distance between the source electrode and the drain electrode being 1 μm to 1mm;

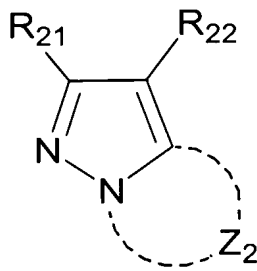
wherein the organic semiconductor layer comprises a heterocyclic compound containing a nitrogen atom formed by condensation between five member rings each having a nitrogen atom at their condensation sites or between a five-member ring and a six-member ring each having a nitrogen atom at their condensation sites, said heterocyclic compound selected from the group consisting of:

(I)



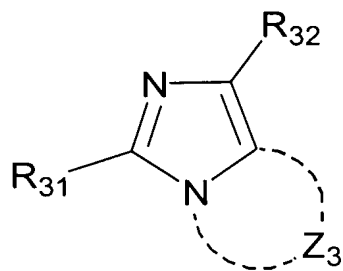
wherein R₁₁, R₁₂ and R₁₃ each independently represents a hydrogen atom or a substituent; and Z₁ represents an atomic group forming a five-member ring or a six-member ring;

(II)



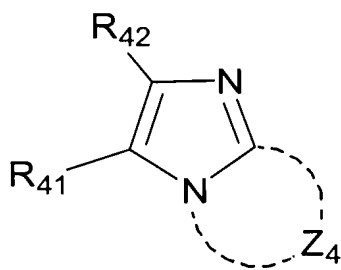
wherein R₂₁ and R₂₂ each independently represents a hydrogen atom or a substituent; and Z₂ represents an atomic group forming a five-member ring or a six-member ring;

(III)



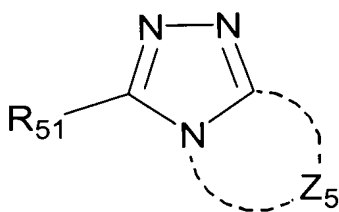
wherein R_{31} and R_{32} each independently represents a hydrogen atom or a substituent; and Z_3 represents an atomic group forming a five-member ring or a six-member ring;

(IV)



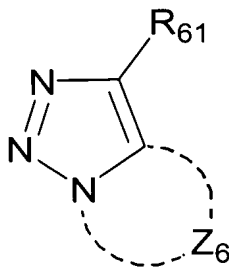
wherein R_{41} and R_{42} each independently represents a hydrogen atom or a substituent; and Z_4 represents an atomic group forming a 5-member ring or a 6-member ring;

(V)

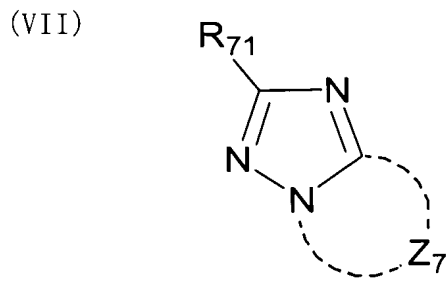


wherein R_{51} represents a hydrogen atom or a substituent; and Z_5 represents an atomic group forming a five-member ring or a six-member ring;

(VI)

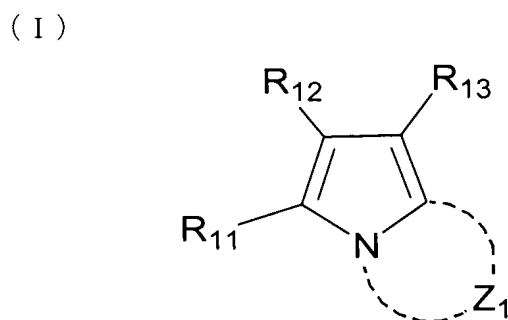


wherein R_{61} represents a hydrogen atom or a substituent; and Z_6 represents an atomic group forming a five-member ring or a six-member ring; and



wherein R_{71} represents a hydrogen atom or a substituent; and Z_7 represents a group forming a five-member ring or a six-member ring.

Claim 2 (Original): The organic thin film transistor according to Claim 1, wherein said heterocyclic compound containing a nitrogen atom is a compound expressed by a following general formula (I):

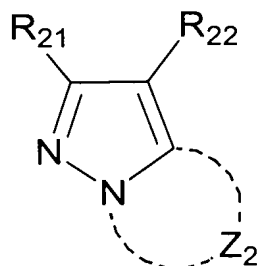


wherein R_{11} , R_{12} and R_{13} each independently represents a hydrogen atom or a substituent; and

Z_1 represents an atomic group forming a five-member ring or a six-member ring.

Claim 3 (Original): The organic thin film transistor according to Claim 1, wherein said heterocyclic compound containing a nitrogen atom is a compound expressed by a following general formula (II):

(II)

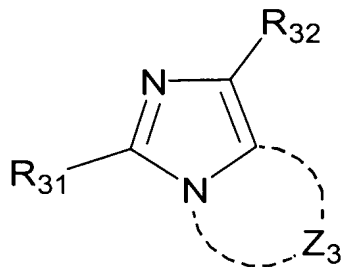


wherein R_{21} and R_{22} each independently represents a hydrogen atom or a substituent;
and

Z_2 represents an atomic group forming a five-member ring or a six-member ring.

Claim 4 (Original): The organic thin film transistor according to Claim 1, wherein said heterocyclic compound containing a nitrogen atom is a compound expressed by a following general formula (III):

(III)

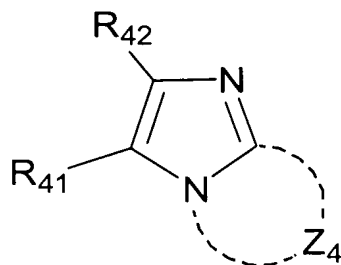


wherein R_{31} and R_{32} each independently represents a hydrogen atom or a substituent;
and

Z_3 represents an atomic group forming a five-member ring or a six-member ring.

Claim 5 (Original): The organic thin film transistor according to Claim 1, wherein said heterocyclic compound containing a nitrogen atom is a compound expressed by a following general formula (IV):

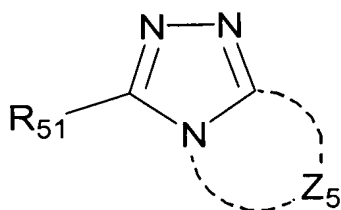
(IV)



wherein R₄₁ and R₄₂ each independently represents a hydrogen atom or a substituent;
and
Z₄ represents an atomic group forming a 5-member ring or a 6-member ring.

Claim 6 (Original): The organic thin film transistor according to Claim 1, wherein said heterocyclic compound containing a nitrogen atom is a compound expressed by a following general formula (V):

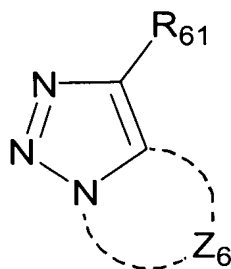
(V)



wherein R₅₁ represents a hydrogen atom or a substituent; and
Z₅ represents an atomic group forming a five-member ring or a six-member ring.

Claim 7 (Original): The organic thin film transistor according to Claim 1, wherein said heterocyclic compound containing a nitrogen atom is a compound expressed by a following general formula (VI):

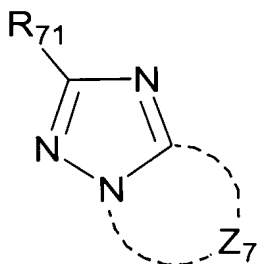
(VI)



wherein R₆₁ represents a hydrogen atom or a substituent; and
Z₆ represents an atomic group forming a five-member ring or a six-member ring.

Claim 8 (Original): The organic thin film transistor according to Claim 1, wherein said heterocyclic compound containing a nitrogen atom is a compound expressed by a following general formula (VII):

(VII)



wherein R₇₁ represents a hydrogen atom or a substituent; and
Z₇ represents a group forming a five-member ring or a six-member ring.

Claim 9 (Previously Presented): The organic thin film transistor according to Claim 1, wherein the distance between the source electrode and the drain electrode is 5 μm to 1mm.

Claim 10 (Previously Presented): The organic thin film transistor according to Claim 1, wherein the source electrode and the drain electrode are formed on the insulating layer.

Claim 11 (Previously Presented): The organic thin film transistor according to Claim 1, wherein the source electrode and the drain electrode are formed on the organic semiconductor layer.

Claim 12 (Previously Presented): The organic thin film transistor according to Claim 1, wherein the source electrode and the drain electrode are formed on the substrate.

Claim 13 (Previously Presented): The organic thin film transistor according to Claim 1, wherein a field-effect mobility of electrons of the heterocyclic compound is $1.0 \times 10^{-3} \text{ cm}^2/\text{Vs}$ or more.

Claim 14 (New): The organic thin film transistor according to Claim 1, wherein the source electrode and the drain electrode are juxtaposed on the substrate.

Claim 15 (New): The organic thin film transistor according to Claim 1, wherein the source electrode and the drain electrode are formed in contact with a same plane.

Claim 16 (New): The organic thin film transistor according to Claim 1, comprising a device structure selected from the group consisting of:

(A) the gate electrode, the insulating layer, a pair of the source electrode and the drain electrode and the organic semiconductor layer formed on the substrate in said order;

(B) the gate electrode, the insulating layer, the organic semiconductor layer and a pair of the source electrode and the drain electrode formed on the substrate in said order;

(C) a pair of the source electrode and the drain electrode, the organic semiconductor layer, the insulating layer and the gate electrode formed on the substrate in said order; and

(D) the organic semiconductor layer, a pair of the source electrode and the drain electrode, the insulating layer and the gate electrode formed on the substrate in said order.

Claim 17 (New): The organic thin film transistor according to Claim 1, wherein the source electrode and the drain electrode are in contact with the organic semiconductor layer.